

## PATENT SPECIFICATION



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## PROVISIONAL SPECIFICATION

## Improvements in and relating to Theatres and the like

We, HOLOPHANE LIMITED, a company organised and existing under the laws of Great Britain, and ROLLO GILLESPIE WILLIAMS, a British subject, both of Holophane House, Elverton Street, Vincent Square, London, S.W.1, England, do hereby declare the nature of this invention to be as follows:—

In the traditional construction of theatre the stage front is bounded by a proscenium arch the opening of which is substantially plane and substantially vertical, the sides comprising straight wall sections transverse to the axis of the theatre; the stage itself often has an apron extending forward of the arch. The bulk of the stage lighting is provided by sources located behind the arch, though the footlights may be in front and it is usual to provide a number of spotlights (each requiring its own operator) at different points in the auditorium. This traditional structure has disadvantages among which is that lighting effected from behind the proscenium arch is inefficient for the lighting of artists because it is generally thrown in uneffective directions; another disadvantage is that the stage manager and prompter are usually placed immediately behind the side walls of the arch where space is cramped and where a proper view of the stage is difficult or impossible to obtain. The transverse side walls with the resulting disadvantages are still present even when the auditorium is built to converge on to the stage opening thus masking the side walls.

The object of the present invention is a departure from the traditional construction which overcomes the above disadvantages. According to the invention the proscenium opening has the sides swept forward in plan and the lower boundaries of these side parts in front elevation slope upwardly from the floor level of the stage; the walls beneath these lower boundaries continue in the form of the side walls of the auditorium which preferably converge from the widest part of the auditorium towards the stage and the boundaries also extend up to the ceiling of the auditorium which is in

general arched. In this way the stage space can be carried round the sides of the proscenium opening behind the side walls of the auditorium from whence light can be thrown upon the stage in very advantageous and effective directions. Ample space is also provided for the stage manager and prompter in positions in which a full view of the stage is obtained. Space is also provided for a switchboard by which an operator or operators who have the stage in view can control substantially the whole of the stage lighting. The roof over the aforesaid lower boundaries is preferably not continuous with the ceiling of the auditorium but is in the form of an arched canopy which, where it reaches the locality of the ceiling, is higher, leaving a space between the two invisible to the audience but providing adequate space for accommodation of considerable lighting equipment which will provide top lighting for the stage in a very efficient manner. The canopy may for instance be more deeply arched than the ceiling thus leaving a crescent shaped space. It should be explained that stepped coved ceilings have already been used the step or steps accommodating invisible lighting equipment which has contributed to the stage lighting but more usually to auditorium lighting a matter with which the present invention has no concern.

The extreme sides of the stage can readily be masked from the audience by carrying the curtains round in a track which extends behind the side walls, but preferably other fixed walls are carried down from the stage roof whose lower edges bound the opening. Thus the opening in elevation may be an oval the side boundaries may be curved but meet in a point. The side walls extending down from the stage roof may meet and unite with the lower side walls of the auditorium but preferably they do not, being behind and spaced away from the latter but parallel or substantially parallel thereto. In this case these side walls may only extend axially of the theatre far enough to effect screening or they may be carried further if structural

reasons render this desirable. In effect the canopy and side walls extending down therefrom form a separate shell from the auditorium walls and ceiling, and one 5 which forms the upper part of a proscenium arch which instead of being vertical is tilted with its upper edge further back than its lower edge while the front of the auditorium shell forms the 10 lower part of the proscenium arch tilted the other way.

The term theatre used herein is to be understood in a broad sense and the invention is applicable to any kind of hall provided with a stage. 15

Dated this 5th day of September, 1936.

SEFTON-JONES, O'DELL &  
STEPHENS,

Chartered Patent Agents,  
285, High Holborn, London, W.C.1,  
Agents for the Applicants.

## COMPLETE SPECIFICATION

### Improvements in and relating to Theatres and the like

We, HOLOPHANE LIMITED, a company organised and existing under the laws of Great Britain, and ROLLO GILLESPIE WILLIAMS, a British subject, both of 20 Holophane House, Elverton Street, Vincent Square, London, S.W.1, England, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

In the traditional construction of theatre the stage front is bounded by a proscenium arch the opening of which is 30 substantially plane and substantially vertical, the sides comprising straight wall sections transverse to the axis of the theatre; the stage itself often has an apron extending forward of the arch. (In this 35 Specification forward means from the stage towards the auditorium). The bulk of the stage lighting is provided by sources located behind the arch, though the footlights may be in front and it is 40 usual to provide a number of spotlights (each often requiring its own operator) at different points in the auditorium. This traditional structure has disadvantages among which is that lighting 45 effected from behind the proscenium arch is inefficient for the lighting of artists because it is generally thrown in un-effective directions; another disadvantage is that the stage manager and prompter 50 are usually placed immediately behind the side walls of the arch where space is cramped and where a proper view of the stage is difficult or impossible to obtain. The transverse side walls with the result- 55 ing disadvantages are still present even when the auditorium is built to converge on to the stage opening thus masking the side walls.

The object of the present invention is 60 a departure from the traditional construction which overcomes the above disadvantages. According to the invention screens are provided at the sides of the auditorium adjacent the proscenium open-

ing shaped to hide from the audience a 65 space outside them from which a view of the stage can be obtained, there being no transverse side walls immediately abutting upon the sides of the proscenium opening which would impede such view. The 70 term proscenium opening used herein means the opening between the auditorium and stage as seen from the auditorium. The invention also consists in a construction in which the proscenium opening has 75 the sides swept forwards in plan and the lower boundaries of these side parts as seen from the auditorium diverge upwardly from the floor level of the stage; walls the upper edge of which form 80 these lower boundaries may continue forwards in the form of the side walls of the auditorium which preferably converge from the widest part of the auditorium towards the stage and the upper 85 boundaries of the side parts of the opening may be the lower edges of walls which unite with the last mentioned walls. Instead the upper boundaries may be 90 formed as described below and the lower boundaries may extend upwards in a continuous sweep to the junction of the side walls with the ceiling of the auditorium which is in general arched. 95 In this way the stage space can be carried forward round the sides of the proscenium opening outside the side walls of the auditorium from whence light can be thrown upon the stage in very advan- 100 tageous and effective directions. Ample space is also provided for the stage manager and prompter in positions in which a full view of the stage is obtained. Space is also provided for a switch-board by which an operator or operators who 105 have the stage in view can control substantially the whole of the stage lighting. The roof over the aforesaid lower boundaries is preferably not continuous with the ceiling of the auditorium but is 110 in the form of an arched canopy which, where it reaches the locality of the ceiling, is higher, leaving a space between the two

substantially invisible to the audience but providing adequate space for accommodation of considerable lighting equipment which will provide top lighting for the stage in a very efficient manner. The canopy may for instance be more deeply arched than the ceiling thus leaving a crescent shaped space. It should be explained that stepped coved ceilings have already been used the step or steps accommodating invisible lighting equipment which has contributed to the stage lighting but more usually to auditorium lighting a matter with which the present invention has no concern.

The extreme sides of the stage can readily be masked from the audience by carrying the curtains round in a track which extends outside the side walls, but preferably other fixed walls are carried down from the above mentioned canopy, the back top edge of the canopy and lower edges of the walls respectively bounding the top and upper sides of the opening as seen from the auditorium. The opening seen from the auditorium may be an oval or the side boundaries may have curved or straight top and bottom parts which meet in a point. Here again curtains may be used to fill the extreme side parts of the opening seen from the auditorium thus leaving a visible opening with vertical side boundaries and a more or less triangular visible portion of curtain on each side. The side walls extending down from the canopy may meet and unite with the lower side walls of the auditorium but preferably they do not, being outside and spaced away from the latter; they may be for example parallel or substantially parallel thereto. In this case these side walls may only extend downwardly and axially of the theatre far enough to effect screening or they may be carried further if structural reasons render this desirable for instance to support the canopy without interfering with the view of the stage from outside the side walls of the auditorium. In effect the canopy and side walls extending down therefrom form a separate shell from the auditorium walls and ceiling, and one whose back edge forms the upper part of the boundary of the proscenium opening which instead of being vertical is tilted with its upper edge backwards while the back edge (i.e. the stage end) of the auditorium shell forms the lower part of the proscenium opening tilted the other way.

The term theatre used herein is to be understood in a broad sense and the invention is applicable to any kind of hall provided with a stage.

The accompanying drawings diagrammatically illustrate a construction of

theatre in accordance with the invention.

Figure 1 is a longitudinal section of the front part of the auditorium and the stage,

Figure 2 is a front view partly in section, looking towards the stage from the auditorium,

Figure 3 is a perspective diagram of the front part of the auditorium side walls and ceiling and the canopy with its side walls.

The auditorium is bounded at the sides by walls 1 which converge towards the stage 2 and a ceiling 3. The ceiling 3 terminates some way in front of the front edge of the stage proper 2 (as distinct from the apron 4) and the portions 5 of the walls behind the end of the ceiling have each an upper edge 6 sweeping down in a continuous curve to the level of the stage. In front of the stage and behind the end of the ceiling 3 is a canopy 7 with side walls 8. The canopy is higher at its front edge than the edge of the ceiling leaving a space 9 substantially invisible to the audience in which lighting equipment for the stage can be accommodated. The canopy slopes down backwardly bringing its back edge 10 to the top of the proscenium opening. The side walls 8 are outside the walls so as to leave a space 11 on each side where the stage manager, prompter and switch-board operators may stand, screened from the audience by the wall parts 5, but themselves having a clear view of the stage. These spaces 11 may conveniently be floored at the same level as, and continuously with, the stage.

It will be noted that the proscenium opening as seen by the audience (Figure 2) consists of a main central portion (bounded by the vertical chain line) with substantially triangular parts 12 outside the chain lines. The exact side boundaries seen will vary from every position in the auditorium. Their shape may be varied by varying the contours of the wall parts 5 and 8. The top and bottom may also be varied for instance the top may be arched. The triangular side spaces 12 may be screened as by curtains hung in or near the vertical plane of the edge 10. Any walls at the sides of the stage needed for cooperating with the safety curtain can also be provided, though not shown.

It will be seen that the proscenium opening is bounded in effect in the upper part by a backwardly tilted arch formed by the rear edge 10 and upwardly converging rear edges of the walls 8 and by downwardly converging edges of the wall parts 5 and the stage floor.

Having now particularly described and ascertained the nature of our said inven-

tion and in what manner the same is to be performed, we declare that what we claim is:—

1. A construction of theatre in which 5 screens are provided at the sides of the auditorium adjacent the proscenium opening shaped to hide from the audience a space outside them from which a view of the stage can be obtained, there being no 10 transverse side walls immediately abutting upon the sides of the proscenium opening which would impede such view.

2. A construction of theatre according to claim 1 in which the proscenium opening 15 has the sides swept forwards in plan and the lower boundaries of the side parts as seen from the auditorium diverge upwardly from the floor level of the stage.

3. A construction of theatre according to claim 2 in which walls the upper edges 20 of which form the said lower boundaries continue forwards in the form of the side walls of the auditorium which preferably converge towards the stage.

4. A construction of theatre according to claim 2 or 3 in which the upper 25 boundaries of the side parts are the lower edges of walls which meet and unite with walls the upper edges of which form the lower boundaries of said side parts. 30

5. A construction according to claim 3 in which the said boundaries extend upwards in a continuous sweep to the junction of the side walls with the ceiling 35 of the auditorium.

6. A construction according to claim 2, 3, 4 or 5 in which the roof over the said lower boundaries is not continuous with

the ceiling of the auditorium but is in the form of a canopy higher than said ceiling 40 thus leaving a space substantially invisible to the audience in which stage lighting equipment for example can be accommodated.

7. A construction according to claim 6 45 in which side walls are carried down from the canopy, whose back top edge and lower edges respectively bound the top and upper sides of the proscenium opening as seen from the auditorium. 50

8. A construction according to claim 7 in which the side walls carried down from the canopy support it and are outside and spaced away from the side walls of the auditorium so as not to interfere with the 55 view of the stage immediately outside said auditorium side walls.

9. A construction according to any preceding claim in which the upper parts 60 of the side boundaries of proscenium opening converge upwards as seen from the auditorium.

10. A construction according to claim 7, 8 or 9 in which the portion of the 65 proscenium boundary formed by said canopy and its side walls in plan has its sides swept forward from its upper edge.

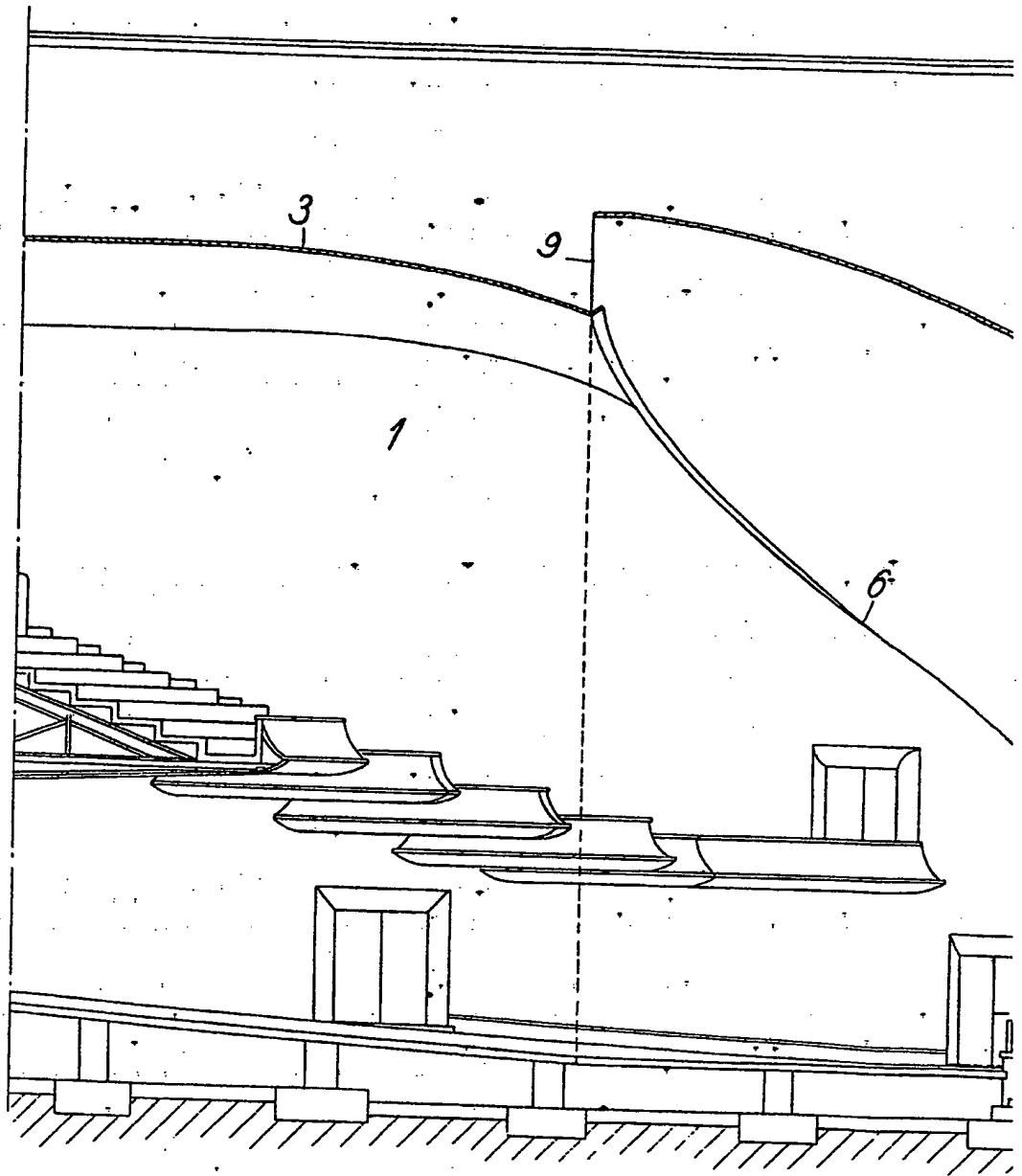
11. A construction according to any preceding claim in which the extreme 70 sides of the stage are masked by curtains. Dated this 5th day of October, 1937.

SEFTON-JONES, O'DELL &  
STEPHENS,

Chartered Patent Agents,  
235, High Holborn, London, W.C.1,  
Agents for the Applicants.

*Fig. 1.*

*[This Drawing is a reproduction of the Original on a reduced scale.]*



7.1.

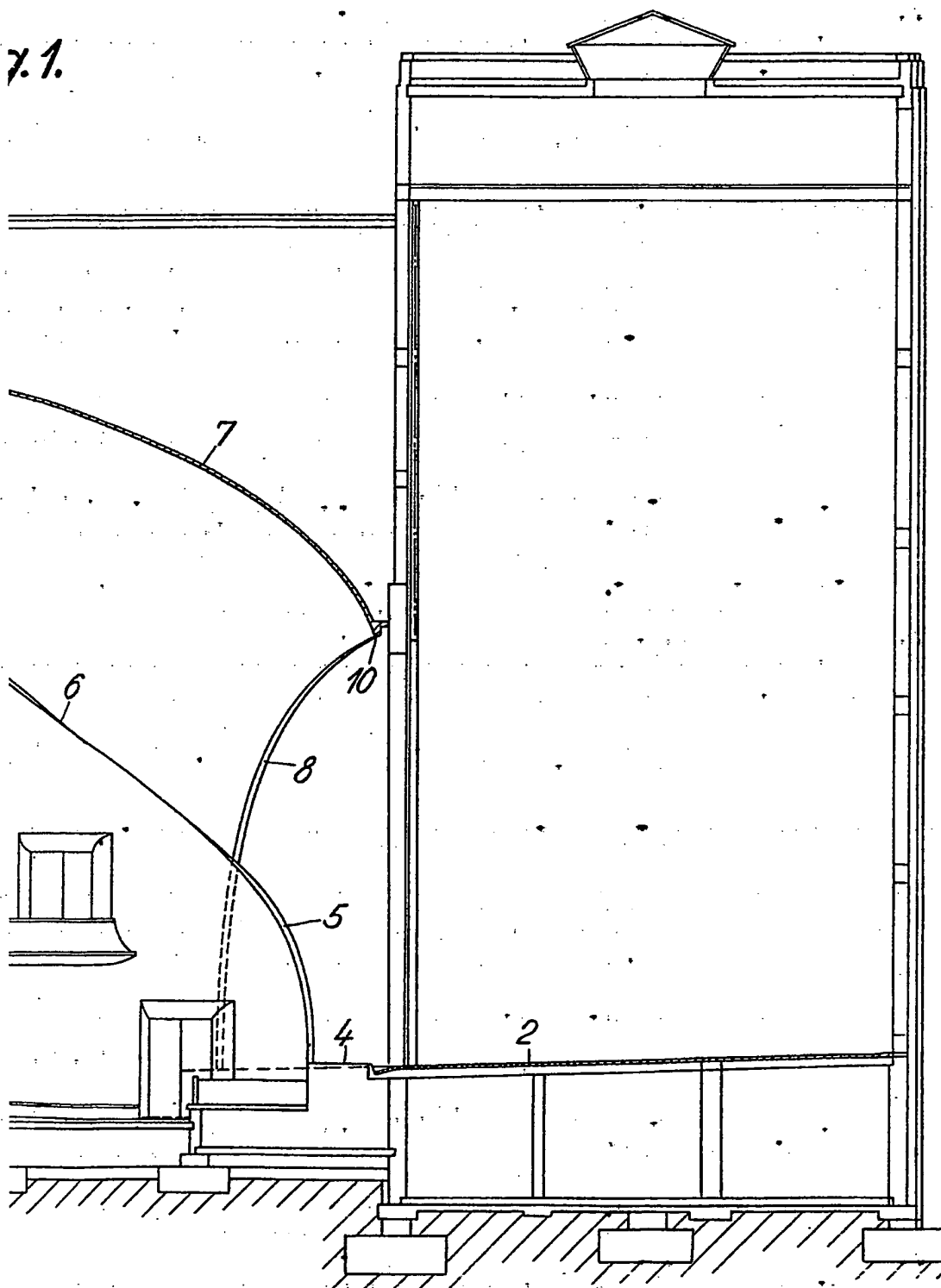
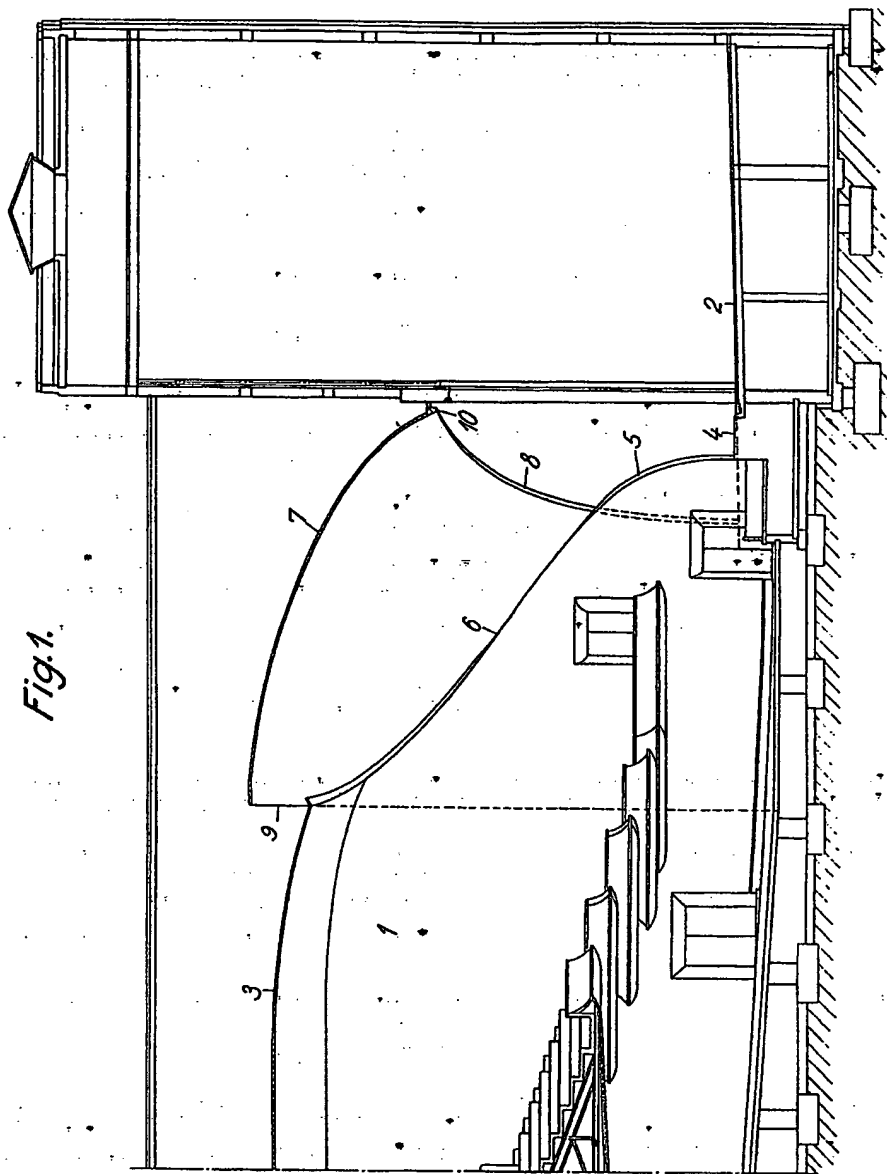


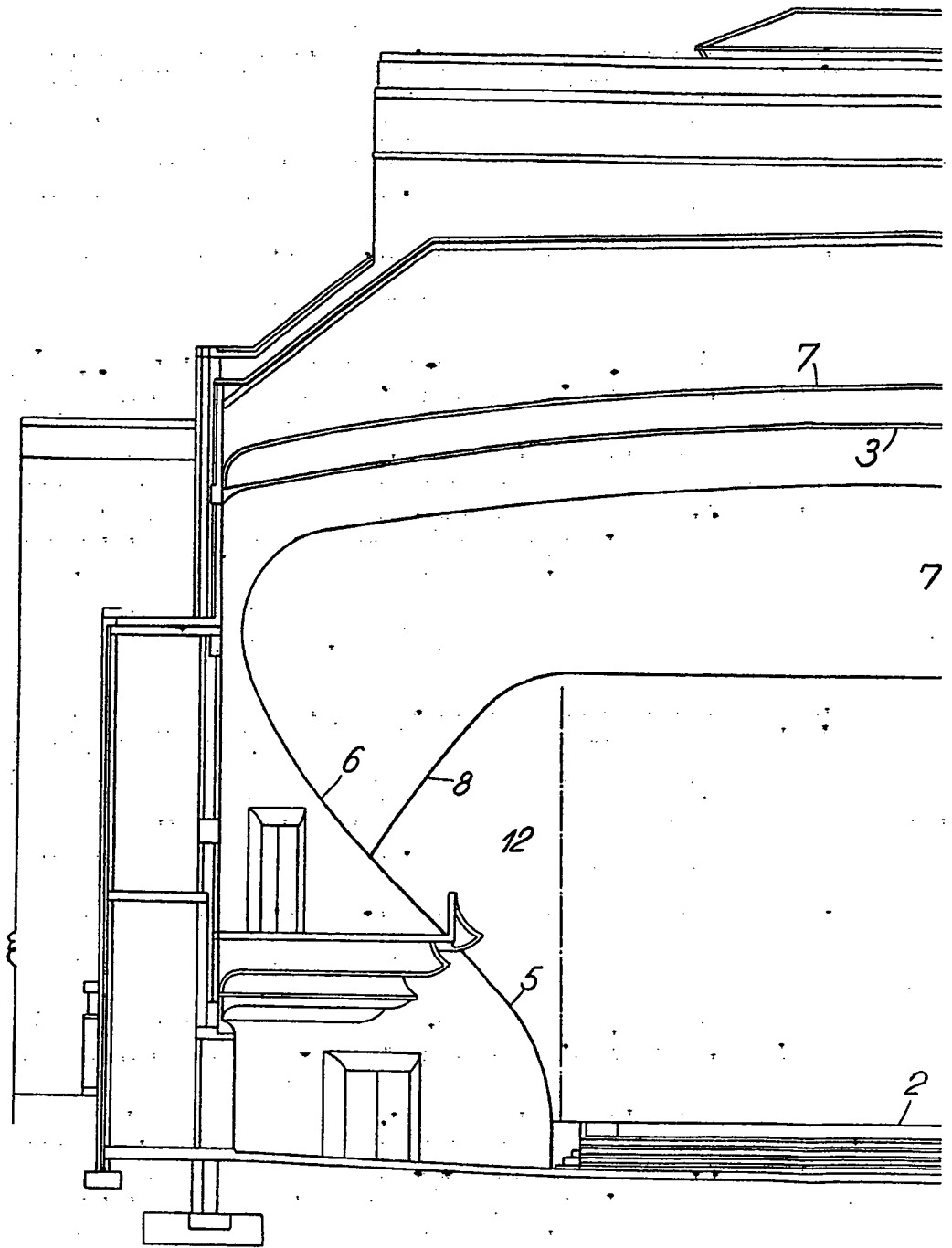
Fig. 1.



[This Drawing is a reproduction of the Original on a reduced scale]

Fig. 1

[This Drawing is a reproduction of the Original on a reduced scale.]





*Fig. 2.*

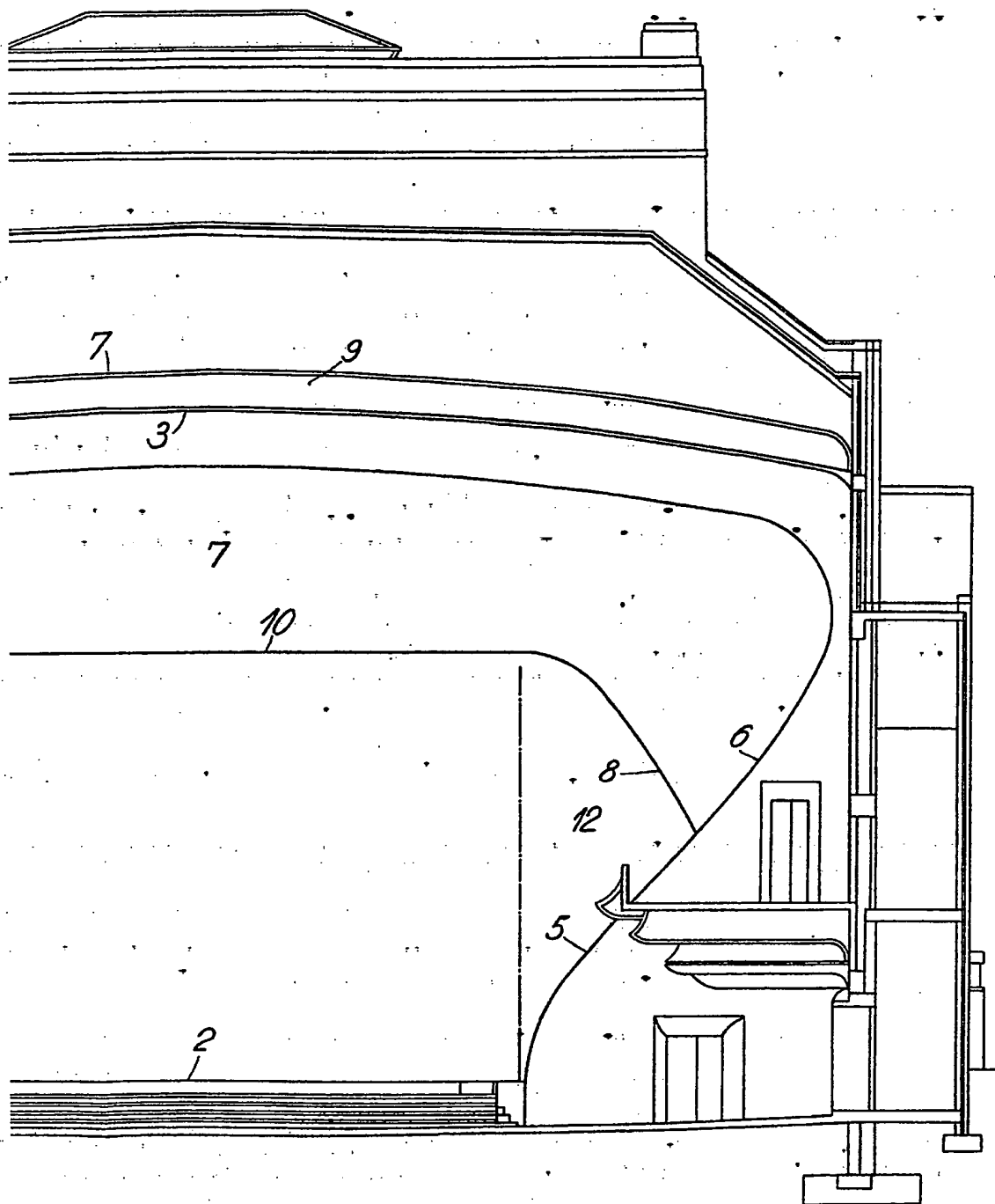
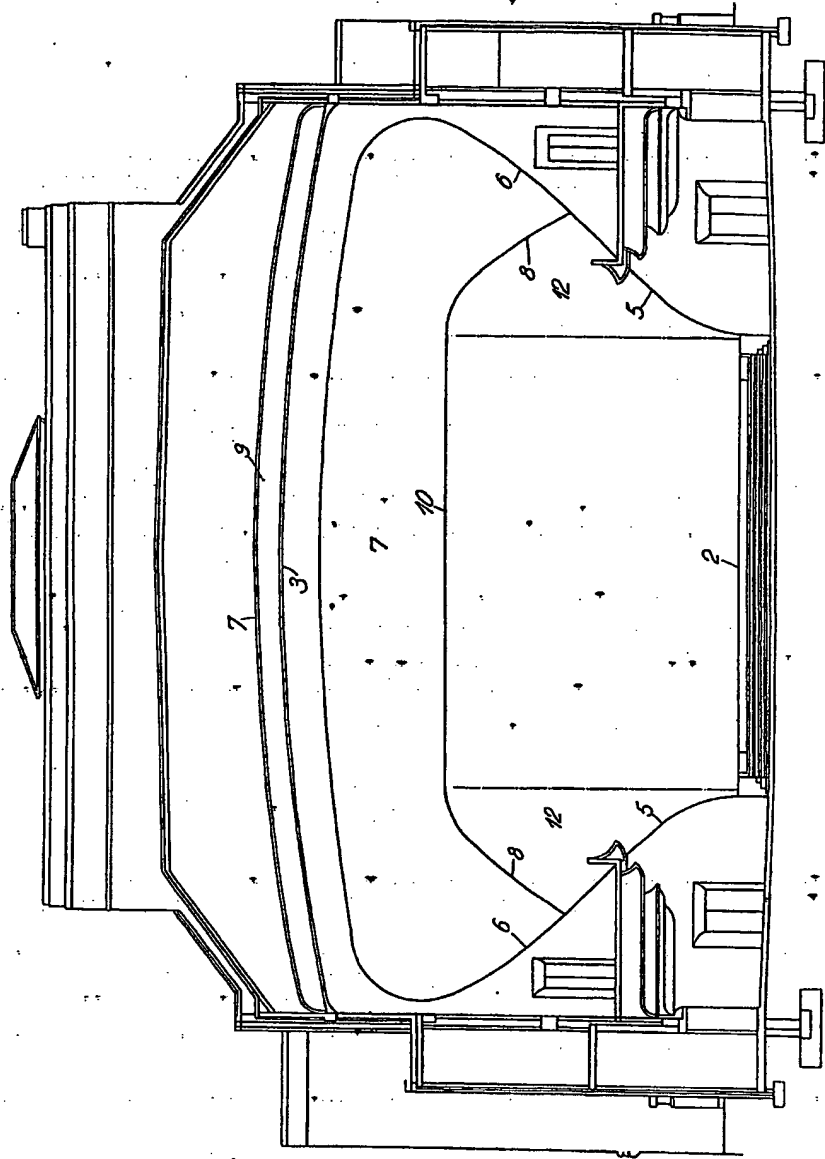


Fig. 2.



[This Drawing is a reproduction of the Original on a reduced scale.]

*Fig.3.*

